

**American University of Central Asia**  
**Liberal Arts and Sciences Department**  
**Mathematical Modeling in Natural and Social Sciences Concentration**  
**2023 AY Checklist**

**Student's Name** \_\_\_\_\_ **ID #** \_\_\_\_\_

<b>General Education – 94 credits (102 credits limit of 100 level courses)</b>	<b>Credits</b>	<b>Completed</b>	<b>Grade</b>	<b>Notes</b>
Academic Orientation program	2	<input type="checkbox"/>		
FYS I: English language for Liberal Arts - 4 credits, English Composition for Liberal Arts I – 6 credits Introduction to Philosophy I (part of FYS I) – 2 credits	12	<input type="checkbox"/>		
FYS II: English language for Liberal Arts - 4 credits, English Composition for Liberal Arts II – 6 credits Introduction to Philosophy II (part of FYS II) – 2 credits	12	<input type="checkbox"/>		
Kyrgyz Language and Literature I - 4 credits Kyrgyz Language and Literature II - 4 credits (to be completed during sophomore year)	8	<input type="checkbox"/> <input type="checkbox"/>		State exam in 2 year
Russian Language I – 2 credits Russian Language II – 2 credits	4	<input type="checkbox"/> <input type="checkbox"/>		
Linear Algebra and Analytic Geometry	6	<input type="checkbox"/>		
History of Kyrgyzstan – 4 credits Geography of Kyrgyzstan – 2 credits (to be completed during sophomore year)	6	<input type="checkbox"/> <input type="checkbox"/>		State exam in 2 year
Manas Studies	2	<input type="checkbox"/>		
Natural Science (Concepts of Modern Sciences)	6	<input type="checkbox"/>		
Arts/Second Year Seminar*	12	<input type="checkbox"/> <input type="checkbox"/>		
Humanities/Second Year Seminar*	12	<input type="checkbox"/> <input type="checkbox"/>		
Social Sciences/Second Year Seminar*	12	<input type="checkbox"/> <input type="checkbox"/>		
Sports (any 4 courses during 4 years of study)	0	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		400 hours/0 credits
<b>Total General Education:</b>	<b>94</b>			
*All students in their 2 <sup>nd</sup> year must take one Second Year Seminar. This seminar substitutes for one required 6-credit course in either Humanities, Social Sciences, Arts or Natural Science.				
<b>LAS Core Courses – 24 credits</b>				
Concepts of Modern Art/Arts	6	<input type="checkbox"/>		Can be counted towards Arts requirement in the General Education program
World Literature/Humanities	6	<input type="checkbox"/>		Can be counted towards Humanities requirement in the General Education program
Concepts of Modern Sciences/Natural Sciences	6	<input type="checkbox"/>		Can be counted towards Natural Sciences requirement in the General Education program
Globalization and Social Sciences/Social Sciences	6	<input type="checkbox"/>		Can be counted towards Social Sciences requirement in the General Education program
<b>Total LAS Core Courses</b>	<b>24</b>			
<b>Concentration Required Courses – 57 credits</b>				
Discrete mathematics and mathematical logic I	6	<input type="checkbox"/>		1 semester
Mathematical Analysis I for AMI/SFW	6	<input type="checkbox"/>		2 semester
Introduction to programming	6	<input type="checkbox"/>		3 semester
The theory of probabilities and mathematical statistics	6	<input type="checkbox"/>		4 semester



## Recommended Order of Study

1st semester (30 credits)		2nd semester (30 credits)	
First Year Seminar I English Composition for Liberal Arts I Introduction to Philosophy I (part of FYS I) – 2 cr	12	First Year Seminar II English Composition for Liberal Arts II Introduction to Philosophy II (part of FYS II) – 2 cr	12
Linear Algebra and Analytic Geometry for AMI/SFW 6		Mathematical Analysis I for AMI/SFW	6
Concepts of Modern Sciences	6	World Literature	6
Elective Course	6	Elective Course	6
Sport	0	Sport	0
3rd semester (33 credits)		4th semester (33 credits)	
Concepts of Modern Art	6	Globalization and Social Sciences	6
Elective Course	6	The Theory of Probabilities and Math. Statistics	6
Introduction to Programming	6	History and Geography of Kyrgyzstan	6
Discrete Mathematics and Mathematical Logic I*	6	Computer Architecture	6
Kyrgyz language and literature – 4 cr. Russian Language – 2 cr.	6	Kyrgyz language and literature – 4 cr. Russian Language – 2 cr.	6
Sport	0	Sport	0
5th semester (33 credits)		6th semester (33 credits)	
Ordinary Differential Equations		Numerical Methods	6
Operating Systems	6	Research Methods in Applied Mathematics	6
General Education Course	6	General Education Course	6
General Education Course	6	General Education Course	6
Elective Course: Database	6	Elective Course	6
7th semester (36 credits)		8th semester (39 credits)	
Senior thesis seminar I	6	Senior thesis seminar II	6
Gen Edu course	6	Gen Edu course	6
Elective Course: Math Modeling in Economics	6	Elective Course: Mathematical Modeling in Geophysics	6
Internship	6	Internship	9
Elective Course	12	Elective Course	12

## Graduation requirements:

1. Earn at least 257 credits
  - a. Complete all General Education requirements;
  - b. Complete all requirements for at least one major;
  - c. Earn no more than 102 credits of introductory (100-level) courses;
  - d. Complete at least 18 elective credits outside of a student's major and General Education program;
  - e. Complete the required number of internship credits (the number of credits is determined by each department);
  - f. Pass all state graduation examinations;
  - g. Successfully complete and defend a senior thesis/project;
  - h. Receive no "F" or "N/P" grades in the final semester;
  - i. To earn an overall GPA of at least 2.0.

## Important Contacts:

### ***LAS Department***

Phone: +996 (312) 915000 \*487

Room: 333

Email: [las@auca.kg](mailto:las@auca.kg)

### ***Academic Advising Office***

Phone: +996 (312) 915000 \*416, 417

Room: 209

Email: [advising@auca.kg](mailto:advising@auca.kg)

### ***Registrar Office***

Phone: +996 (312) 915000 \*401,402

Room: 110

Email: [registrar@auca.kg](mailto:registrar@auca.kg)

### ***Writing and Academic Resources Center***

Phone: +996 (312) 915000 \*490

Room: 224

Email: [warc@auca.kg](mailto:warc@auca.kg)

### ***Shared Service Center***

Phone: +996 (312) 915019

Room: 244

Email: [service@auca.kg](mailto:service@auca.kg)

### ***Counseling Services***

Write an email to set up a meeting with counselors:

[cs@auca.kg](mailto:cs@auca.kg)

**Student's signature:** \_\_\_\_\_

*(I am informed and confirm that I have completed all required courses and necessary components for my department)*

**Advisor's name and signature:** \_\_\_\_\_

*(I have reviewed and confirmed that the student has completed all required courses and necessary components for their department)*

**Department chair's name and signature:** \_\_\_\_\_

*I have double-checked and confirmed that the student has completed all required courses and necessary components for their department and eligible to graduate)*